

DETAILED ACTION

Specification

1. The Specification is not formatted according to US practice. The Applicant is reminded the content of the specification.

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the

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applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the

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World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

2. The disclosure is objected to under 37 CFR 1.71, as being incomprehensible as to preclude a reasonable search of the prior art by the Examiner. For example:

-It is unclear what the reducer is. See paragraph 3 of the Specification.

-It is unclear what mechanism allows mounting and dismounting the cutting knife without need for any adjustment.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the mechanism of claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear what mechanism allows mounting and dismounting the cutting knife without need for any adjustment.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 calls for "the position adjustment can be made easily in three axes". It is unclear if it is the position adjustment of the dough or the sensor or the cutting knife.

Claim 1 recites the limitation "the position adjustment " in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the 4th axis" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman et al. (4,581,971), hereinafter Hickman, in view of Kawashima et al. (6,951,235), Hein (6,552,354) and Flaherty et al. (2005/0229762), hereinafter Flaherty.

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Regarding claim 1, Hickman teaches a bread top slicer comprising a cutting knife

64. See Fig. 4.

Hickman does not teach using a laser sensor for taking image of the dough upper surface.

Kawashima teaches using a laser sensor 8 for taking image of a curve surface to create a groove with a constant depth. See Fig. 7.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate a sensor as taught by Kawashima to bread top slicer of Hickman for taking image of a curve surface of the dough to create a split with a constant depth.

It is to be noted that a photo-sensor comprises a laser as evidenced by Hein. See col. 1, line 50-55.

It is to be noted that the photo-sensor 8 is run by electric. Therefore, an electronic enclose system is inherent in the photo-sensor.

Hickman teaches a pneumatic motor for operating the cutting knife.

Flaherty teaches the art equivalent of a servo motor and a pneumatic motor. See paragraph 53.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to a servo motor for operating the cutting knife since it has been held that substituting equivalents known for the same purpose is obvious to one skilled in the art. See MPEP. 2144.06.

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Regarding claim 2, the cutting knife of Hickman is capable of being mounted and dismounted without need for any adjustment.

Regarding claim 4, a 4th axis is best seen in Fig 1 in Hickman. The cutting knife moves to the left and the right.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman et al. (4,581,971), hereinafter Hickman, in view of Kawashima et al. (6,951,235), Hein (6,552,354) and Flaherty et al. (2005/0229762), hereinafter Flaherty as applied to claim 1 above, and further in view of Kozelka et al. (2,173,278), hereinafter Kozelka.

The modified bread top slicer of Hickman teaches the invention substantially as claimed except for immersing the cutting knife into a water container.

Kozelka teaches placing a knife into a water container for cleaning the knife. See Fig. 1.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a water container as taught by Kozelka to the modified bread top slicer of Hickman for cleaning the cutting blade.

Since the cutting blade reciprocates between two ends of the bread top slicer in Fig. 1, it would have been obvious to one skilled in the art at the time the invention was made to provide each end of the bread top slice a water container so that the cutting knife is clean after and before a slicing process.

Conclusion

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fagan et al., Goglanian and Martin teach bread top slicers of general interest.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHONG H. NGUYEN whose telephone number is (571)272-4510. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. H. N./
Examiner, Art Unit 3724
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